

# The LongPath

A North Alabama DX Club Publication

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## How to Join

- \* Come to a club meeting;
- \* or send in an application by mail (form on [www.NADXC.org](http://www.NADXC.org))

## From the President

Another busy month, but of course without those team DXpeditions. We've had three contests over the past month: the ARRL June VHF, Field Day, and 13 Colonies. Our members have been active in all of them. Warren, K4MMW, put together a big team effort for the VHF contest. Working with Warren and Karen is always a gas. Gary, W9SGM, hosted the Field Day effort where the CW crew amassed a new record of almost 1700 QSOs. Wow. I even worked them twice from here. And finally, MD Smith, WA4DXP, ran a clean sweep in the 13 Colonies contest. Read reports from MD below.

On a heavier note, we mourn the passing of Evelyn Watson, KC4RPD, XYL of AI, W4ABW and long-time HAYLARC member. Craig Behrens, NM4T (No Money 4 Toys), a long-time club member and officer, passed away back in February. In March the club voted to honor his service with a brick on the terrace in Newington. Steve Molo, KI4KWR, and I took the opportunity to present a replica of that brick to his XYL and daughter recently. Jack Hemby, W5WQQ, is recovering from two back surgeries last month. Jack turned 80 recently and doesn't climb towers as often any more. Jack has a long way to go but is recovering well. And I had a second hip replacement surgery in May. For the first time in 7 years, I can bend down and tie my shoes.



Many of you may have noticed that our 147.300 repeater died back in mid-June. I immediately call Rob Conklin, N4WGY, who finished repairing it just three days later. The repeater that we owned was a 1974 unit. It died and got buried. We have new equipment now, and it has pretty extreme capabilities. We have never used all the digital capabilities that are now there, but we could if we wanted. Rob put an amount of his own resources into our new repeater, but has refused personal compensation. Instead I offered a donation to NA-RA. We can discuss that on Tuesday.

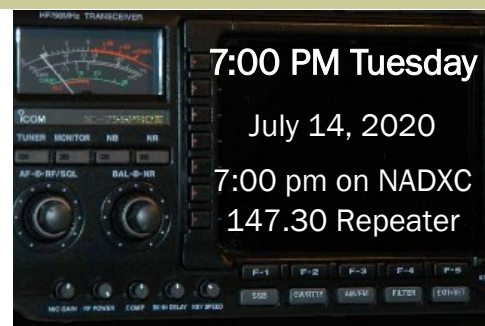
Back in March we were in the second month of a multi-stage effort to make meaningful changes to the club's constitution. We had two stages left when the virus forced us to virtual meetings, and ran the effort off track. Now after another four months we're seeing an equal number of members checking in to our

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## Is This the Rarest QSL in the World?

July Program by Chuck Lewis, N4NM

One of the great things about Huntsville is the access we have to those who have worked and do currently work on various NASA programs. Don't miss Tuesday's Zoom meeting to hear Chuck's first-hand story about what may well be even rarer than that P5 card you've dreamed of. Check the last page for details on joining the meeting. See you there!



## Retirement and COVID Project Update 3

By Steve Werner, AG4W

It has been a great month for sporadic E on 6 meters. I encourage everyone to monitor the repeater for spots. I was glad Johnny, KR4F was listening on June 3rd when we had the opening on 6 meters to Japan. I worked 6 JA stations. It is very unusual to work Japan on 6 meters in Alabama. It was a first for me. On June 17th we had the opening of a lifetime working 23 European stations starting at 13:04 UTC until 23:27. Between 22:51 UTC and 23:23 I worked 7 stations in Japan. On June 21st I worked 13 stations in Europe from 19:35 UTC to 22:33. More recently on June 26th I worked 9 European stations from 15:00 to 16:25 UTC. These openings pushed my 6 meter grid square count for VUCC for this season from 300 to 420 on LOTW. About 40 percent of my new grid squares on 6 meters are from DX stations. I also added to my 6 meter DXCC country count. Fifteen new ones are already confirmed on LOTW.

We were also lucky to have a wonderful opening during the ARRL June VHF contest to the northeast. This opening allowed me to work over 500 contacts during the contest. The last 2 hours we had an opening to the mid west which was good for multipliers. One of the interesting decisions in that contest was to know when to change from FT8 to SSB or CW. You can run a higher rate on those modes if the band is open. It was a little frustrating because I could hear more than I could work with low power. I decided last month to change that with a call for variable capacitors. Kevin, KG4TEI had just what I needed so the project moved to the next stage. I am converting my old SB-220 to a 6 meter only amplifier.

There have been at least 6 articles on converting an SB-220 to 6 meters. I am amazed how different they all are. King Conversions will also do the modi-



Good old SB-220—Still in one piece

fication for you for \$550. That is probably a bargain based on the hours I will be putting into the effort with no guarantee of success. I wonder how many hams would take a perfectly good HF amplifier and tear half the parts out of it. So far the cost for the 6 meter modification is \$20.

The amplifier demolition phase is complete. I removed all of the input and output tuned circuits. I have completed an initial design for the 6 meter

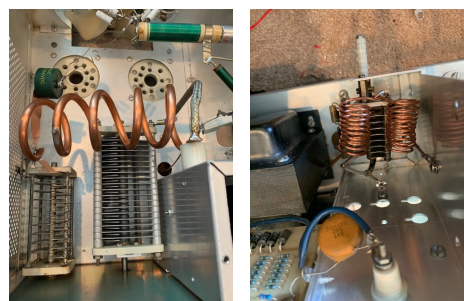


Original HF tuned circuits removed

input and output circuits based on the parts I acquired. I am using some 1/4 inch tubing from an old N4KG tuner for the output coil. I was so happy to put that to use. If you ever want to clean copper use Lime-A-Way and some steel wool. Look at the difference. This is also good for cleaning up copper wire

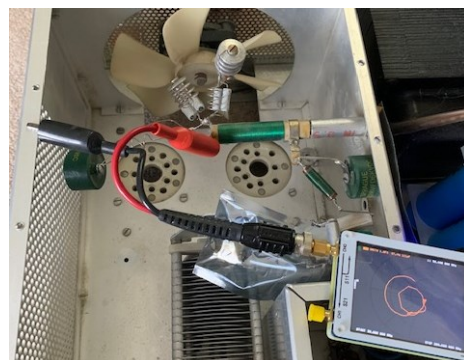


New output (top) and input (bottom) coils outside to solder. The input tuned circuit uses two 10 turn coils and a variable capacitor. I used the old tune capacitor for the new load capacitor and installed a 60 pf tune capacitor. You can see how they both circuits look in the amplifier.



New output and input tuned circuits

There were many other amplifier issues to consider such as the plate choke and parasitic suppressors design. I have used my NanoVNA to look at resonant frequencies and impedance. The plate choke has a resonance near 100MHz so I will need to modify the current choke to get it off the sec-



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## Retirement and COVID Project Update 3

(cont'd from p. 2)

ond harmonic. My initial design is to take 10 turns off the plate choke and 1 turn off the parasitic coil.

Bob K8KI has built me a nice shelf to put the amplifier on. He also did some nice shelf work for Bruce AC4G. I am in the process of building some new cables to integrate the amplifier into my station. I look forward to trying Bob's LP-500 testing out the amplifier.



Carpentry courtesy Bob, K8KI

My upgraded EME station continues to work well most of the time. I have added 13 new first time worked stations to the log this month bringing my total of unique stations to 113. I continue to be amazed at a good EME opening. You get about 4 really good low

noise days a month. I now have 62 grid squares confirmed in LOTW on 2 meters. I still continue to have problems with my preamplifier at the antennas. It is very hard to keep those working. Make them easy to remove and repair. The capacitor to the right of the FET burned up this time. Notice the brown vs. yellow color below.



My wife Kathy surprised me with a Vibroplex Duo for our anniversary this month. It replaced the Original Deluxe bug that had been on the desk since 1966. It also replaced my Bencher paddle. There is no substitute for a high quality key. I was also pleased to just receive a plaque for winning the CQWW SSB contest for USA single op, single band 1.8MHz.

73 Steve AG4W

### August Vote on Constitution Changes

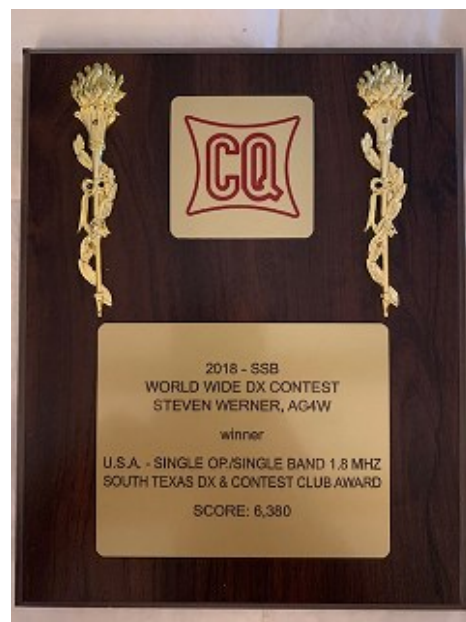
While it has been the intent of club leadership to have an in-person vote on changes to the constitution first proposed in the January edition of the LongPath (and repeated below), we have no idea when we'll meet next in-person. To refresh your memory, we have already voted to change the by-laws to allow notification via the LongPath one month in advance of votes on proposed changes to the constitution. This column serves as such notification that at the August Zoom meeting we vote on the remaining proposal, a change to the constitution re-



Brand new Vibroplex Duo



Original Bug—Remember the QST ads?



garding classes of club membership. We will open the floor for discussion on both a) whether to allow such a Zoom-based vote, and b) the merits of the proposed changes. Such votes will be held "in reverse" - anyone wishing to vote "nay" will send a chat message to the "election coordinator" (most probably Tom Duncan, KG4CUY) requesting a nay vote. Votes will be tallied based on those present in the Zoom meeting and the results announced.

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### New DX Tools Column

This month we have the first installment of a new column, DX Tools, kicking off with an article by Bruce Smith, AC4G. We hope to hear from everyone who has any sort of tool they put to use chasing DX, be it software, hardware, organizational, informational, computation, or just plain sensational. Whatever you have that helps you may help others, so don't keep all the hints and kinks secret. Send a full blown article, a brief description, or even just a picture to the LongPath editor at "pidlet@aol.com". Thanks!

## DX Tools: Other Tools Beneficial to DXers

By Bruce Smith, AC4G

As Radio Amateur DXer's and contesters, we typically have "ham radio" software tools available to us helping us to increase our DXCC country total and increase contest QSOs. The other day while I was sitting in my new shack pondering of all of the commercial and custom-developed software tools available for hams on the internet which were developed by hams for hams or from vendors for purchase, I began thinking about "other tools" I use that help me. Perhaps many DXers & contesters might not use additional tools like me, but these "free" tools have helped me to increase my DXCC country total and perhaps they can help you. In this discussion, I will share some of these useful tools with you.

First of all, I track the DXCC countries I have worked via a spreadsheet. I went to American Radio Relay League

(ARRL's) Logbook of the World (LOTW) to determine DXCC countries worked, DXCC countries confirmed, and on which band and in some cases, which mode I have worked and confirmed DXCC countries. I was able to copy and paste these DXCC entities from LOTW into a Microsoft Excel spreadsheet that I developed in a short period of time.

Picture 1 shows the spreadsheet I developed showing DXCC country, band, and whether I have worked the entity. Even better, on the sheet, I indicate if I have the country confirmed. Reference Picture 2. For example, I worked D44TD on 6m and D44KS on 17m (band not mode dependent), but have not yet received either a LOTW confirmation or a QSL to confirm the QSO. This unconfirmed QSO is highlighted with a yellow background. If there is not a callsign entry in a cell,

then I have never made a QSO with that country on that band. This method does not track mode, but only tracks working or confirming a QSO on a particular band. A more detailed spreadsheet would allow for one to track mode and band.

The simple reason I developed this spreadsheet is to quickly and visually determine if I have a DXCC country worked and confirmed when spotted on a spotting network. If I do not have the country confirmed, I will typically tune-up and work the country again, especially if it is a different callsign from a particular DXCC entity that I have never QSO'd and do not have confirmed. Picture 3 on the next page shows another version of my DXCC countries list showing entities needed.

Cont'd on p. 5

| DXCC Entity              | 160M      | 80M       | 40M        | 30M        | 20M    | 17M         | 15M        | 12M         | 10M       | 6M     | RTTY-Digital | SATELL |
|--------------------------|-----------|-----------|------------|------------|--------|-------------|------------|-------------|-----------|--------|--------------|--------|
| BOSNIA-HERZEGOVINA       | E7DX      | E7DX      | E73Y       | E74A       | T97M   | E77DX       | T95X       | E77DX       | E7DX      |        | E73Y         |        |
| BOTSWANA                 |           | A25UK     | A25KW      | A25UK      | A22AA  |             | A22GH      | A25UK       | A22AA     |        | A25UK        | A22BW  |
| BOUVET ISLAND            |           |           |            |            |        |             | 3Y5X       |             |           |        |              |        |
| BRAZIL                   | PT7BXB    | PW7T      | PW7T       | PR7AR      | PW7T   | ZW7TU       | PY2XB      | PY2COY      | ZZ2Z      | PT7NK  | PY2XB        | PS7KM  |
| BRITISH VIRGIN ISLANDS   | VP2V/K3LR | VP2V/K3MD | VP2V/K6TOP | VP2V/DK7PE | VP2VFP | VP2V/SP2FUD | VP2V/W9VNE | VP2V/SP2FUD | VP2V/AA7V |        | VP2V/SP2FUD  |        |
| BRUNEI                   |           | V84SAA    | V84SAA     | V85DA      | V85XF  | V84SMD      | V85OM      |             |           |        | V84SAA       | V85CQ  |
| BULGARIA                 | LZ9W      | LZ9W      | LZ9W       | LZ916SS    | LZ2TU  | LZ1WARD     | LZ1BJ      | LZ182MIT    | LZ2HM     |        | LZ2WO        | Lz2h   |
| BURKINA FASO             |           | XT2TT     | XT2TT      | XT2TT      | XT2TT  | XT2TT       | XT2BN      | XT2TT       | XT2DX     |        | XT2SE        |        |
| BURUNDI                  |           | 9U4U      | 9U4U       | 9U4U       | 9U5DX  | 9U4U        | 9U4U       | 9U4U        |           |        | 9U4M         |        |
| CAMBODIA                 |           |           |            |            | XU2FB  | XU1A        | XU8CW      |             | XU8DX     |        |              |        |
| CAMEROON                 |           | TJ2TT     | TJ2TT      | TJ35N      | TJ1GG  | TJ2TT       | TJ1GG      |             | TJ1GG     |        | TJ2TT        |        |
| CANADA                   | VE3XB     | VE3GNF    | VE7CFD     | CH9HF      | VE7QQ  | VE9HF       | VE1OP      | VE3YXE      | VE3VFR    | VO1BC  | VE3RCN       | VE3PYG |
| CANARY ISLANDS           | EA8/RA1A  | EF8R      | EA8OM      | EA8CAC     | EA8RCT | EA8/DJ1OJ   | EA8CN      | EA8TL       | EA8TL     | EA8DBM | EA8TL        | EA8AFJ |
| CAPE VERDE               | D4Z       | D4C       | D4C        | D44TUK     | D44BC  | D44KS       | D4C        | D44TXT      | D4C       | D44TD  | D44TXT       |        |
| CAYMAN ISLANDS           | ZF2NT     | ZF2LC     | ZF2NZ      | ZF2LC      | ZF2NE  | ZF2LC       | ZF1A       | ZF2LC       | ZF2NT     | ZF2EZ  | ZF2CJ        | ZF1DC  |
| CENTRAL AFRICAN REPUBLIC | TL8TT     | TL8TT     | TL8AO      | TL8AO      | TL8TT  | TL8AO       | TL8AO      |             |           |        | TL8TT        |        |
| CENTRAL KIRIBATI         | T31EU     | T31T      | T31T       | T31T       | T31T   | T31T        | T31A       | T31A        | T31KY     |        | T31T         |        |
| CEUTA & MELILLA          |           | ED9Z      | ED9M       | EA9EU      | EA9IE  | EA9/DL6RAI  | EA9FT      | EA9IE       | EA9IE     |        | EA9LZ        | EA9M   |
| CHAD                     |           | TT8TT     | TT8TT      | TT8TT      | TT8TT  | TT8NU       | TT8TT      | TT8TT       | TT8TT     |        |              |        |
| CHAGOS ISLANDS           |           | VQ9XR     | VQ9XR      | VQ9AB      | VQ9JC  | VQ9JC       |            | VQ9QM       |           |        |              |        |

Picture 1 above: AC4G DXCC Compiled List Showing Station Worked and if Confirmed

| 17M        | 15M   | 12M    | 10M    | 6M     | RTTY-Digital |
|------------|-------|--------|--------|--------|--------------|
| 9U4U       | 9U4U  | 9U4U   |        |        | 9U4M         |
| XU1A       | XU8CW |        | XU8DX  |        |              |
| TJ2TT      | TJ1GG |        | TJ1GG  |        | TJ2TT        |
| VE9HF      | VE1OP | VE3YXE | VE3VFR | VO1BC  | VE3RCN       |
| EA8/DJ1OJ  | EA8CN | EA8TL  | EA8TL  | EA8DBM | EA8TL        |
| D44KS      | D4C   | D44TXT | D4C    | D44TD  | D44TXT       |
| ZF2LC      | ZF1A  | ZF2LC  | ZF2NT  | ZF2EZ  | ZF2CJ        |
| TL8AO      | TL8AO |        |        |        | TL8TT        |
| T31T       | T31A  | T31A   | T31KY  |        | T31T         |
| EA9/DL6RAI | EA9FT | EA9IE  | EA9IE  |        | EA9LZ        |

Picture 2 left: Exploded view of AC4G DXCC Country List



## Other Tools Beneficial to DXers

(cont'd from p. 4)

The next "tool" I use and have at my disposal is a Heading Country List, picture 4. This is a list I printed based on my exact QTH and allows me to rotate my antennas to the correct heading of a particular DXCC country. I even use this to make sure I use the correct beverage antenna based on the heading of a DXCC country I hear on my beverage antenna when on the low bands. When the morning magic occurs of the south-west band opening, I grab this tool to make sure I am pointed in the correct direction on the higher HF bands. Picture 4 depicts the heading and distance details described above including longpath direction(s).

Next (picture 5 below), I have a CQ Zone map at my finger tips that I use during the CQ sponsored contest events such as CQWW CW, CQWW SSB,

CQWW RTTY, and CQWW VHF contests. During these events and for some of us chasing Worked All Zones (WAZ), this map come in handy to know which countries are located in which CQ Zone (Reference CQ Zone Pap in Picture 5). I also have a large map of the world nearby to help me visually see countries that could be operating if propagation favors a particular area of the world from my QTH.

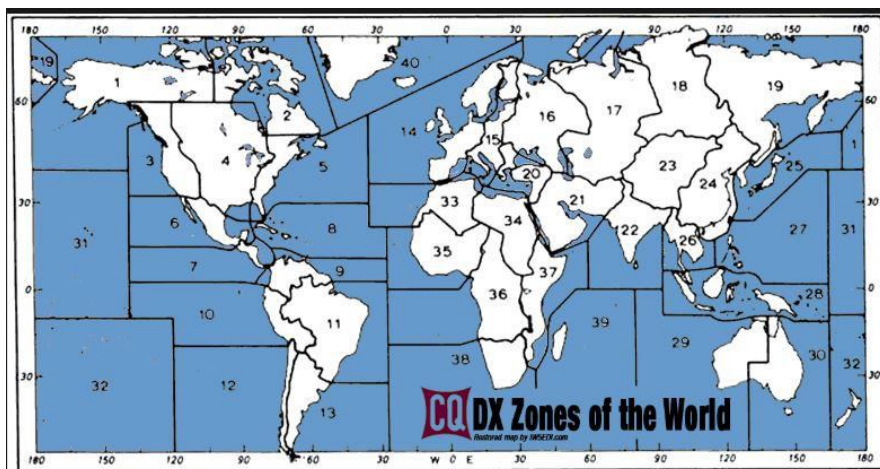
One important table I use (not shown) includes all of the HF, VHF, and UHF frequencies available to radio amateurs. Although, we all should know the HF frequencies that every class of ham uses, since we had to learn and memorize these for our FCC license exams, sometimes it is prudent to know the band edges for bands that we may not often use such as in the UHF

region and microwave frequencies allocated to radio amateurs as well as other less used frequencies and modes. I sometimes find myself looking for the RTTY allocation, as not to operate outside of the designated frequencies. I also have generated a chart for 60m, the latest, newly channelized band.

All contests have exchanges. Each contest or event seems to have their own unique exchange. Many of the popular contests are sponsored by CQ Magazine and the ARRL. Among many competition events are state QSO parties. One event that I support is the Tennessee QSO Party. The exchange for within state stations is their county and out of state competitors give their state. I have a map (Picture 6) readily available during this contest to help me make sure the county abbreviations

| Country                    | 160m | 80m | 40m | 30m | 20m | 17m | 15m | 12m | 10m | Digital |
|----------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|---------|
| Afghanistan (T6)           | T6   |     |     |     |     |     |     |     |     |         |
| Agalega & St Brandon (3B7) |      |     |     |     |     |     |     |     | 3B7 |         |
| Aland Isl (OH0)            |      |     |     |     |     |     |     |     |     | OH0     |
| Albania (ZA)               |      |     |     |     |     |     |     | ZA  |     |         |
| Algeria (7X)               |      |     |     |     |     | 7X  |     | 7X  |     |         |
| Andanan & Nicobar (VU4)    | VU4  | VU4 | VU4 | VU4 |     |     |     |     | VU4 |         |
| Andorra (C31)              |      |     |     |     |     |     |     | C31 | C31 |         |
| Angola (D3)                | D3   |     |     |     |     |     |     |     | D3  | D3      |
| Antarctica (KC4)           |      |     |     |     |     |     |     |     | KC4 |         |
| Armenia (EK)               |      |     |     |     | EK  |     |     | EK  | EK  |         |
| Aves Island (YV0)          | YV0  | YV0 | YV0 | YV0 |     |     |     | YV0 |     | YV0     |
| Azerbaijan (4K)            | 4K   | 4K  | 4K  |     |     |     | 4K  |     | 4K  | 4K      |
| Bahamas (C6)               |      |     |     |     |     |     |     |     |     | C6      |
| Bahrain (A9)               | A9   | A9  |     |     |     |     |     | A9  |     |         |
| Baker & Howland Isl (KH1)  |      |     |     |     |     |     |     |     |     | KH1     |

Picture 3: Quick Reference List Showing Band & Country Needed to QSO



Picture 5: CQ Zone Map

| PREFIX | COUNTRY NAME                      | SHORT PATH | LONG PATH | DISTANCE |
|--------|-----------------------------------|------------|-----------|----------|
| 14MM   | SOVEREIGN MILITARY ORDER OF MALTA | 54         | 231       | 588      |
| 15.980 | SPRATLY ISLANDS                   | 135        | 155       | 528      |
| 3A     | MONACO                            | 54         | 231       | 4797     |
| 3B7    | AGALEGA & SAINT BRANDON ISLANDS   | 63         | 243       | 8534     |
| 3B8    | MAURITIUS ISLAND                  | 74         | 254       | 10912    |
| 3B9    | RODRIGUEZ ISLAND                  | 87         | 247       | 10253    |
| 3C     | EGUATORIAL GUINEA                 | 86         | 268       | 6595     |
| 3C8    | ANHROH                            | 80         | 270       | 6362     |
| 3D0C   | CONWAY REEF                       | 87         | 277       | 7054     |
| 3D2    | FAUJ ISLANDS                      | 258        | 78        | 7223     |
| 3D2    | ROTUNDA                           | 264        | 84        | 7892     |
| 3D6    | SIWA ISLAND                       | 99         | 279       | 8748     |
| 3V     | TUNISIA                           | 66         | 236       | 6183     |
| 200.4V | VIL I BAM                         | 143        | 163       | 3227     |
| 3A4    | GUINEA                            | 82         | 272       | 6948     |
| 3Y     | BOUVET ISLAND                     | 138        | 348       | 8128     |
| 3Y     | PETER I ISLAND                    | 181        | 1         | 1128     |
| 4J     | AZERBAIJAN                        | 32         | 242       | 6843     |
| 4L     | GEORGIA                           | 35         | 245       | 6315     |
| 4M     | MONTENEGRO                        | 47         | 227       | 5348     |
| 4S     | SRI LANKA                         | 24         | 204       | 5388     |
| 4UHTU  | ITU HQ                            | 89         | 228       | 4955     |
| 4UHTB  | UNITED NATIONS HQ                 | 89         | 240       | 777      |
| 4W     | TIMOR - LESTE                     | 395        | 125       | 8707     |
| 4X     | ISRAEL                            | 47         | 227       | 6516     |
| 5A     | LIBYA                             | 59         | 239       | 6431     |
| 5B     | CYPRUS                            | 45         | 225       | 6238     |
| 5B     | TAJIKANIA                         | 74         | 254       | 8595     |

Picture 4: Beam headings from AC4G QTH

Cont'd on p. 6

### NADXC Officers and Directors

|                |                     |
|----------------|---------------------|
| President      | Bob De Pierre, K8KI |
| Vice President | Steve Molo, KI4KWR  |
| Secretary/     | Chris Reed, AI4U    |
| Treasurer      |                     |
| At-large       | Kevin Hibbs, KG4TEI |
| Directors      | Tom Duncan, KG4CUY  |
| (Ex-Officio)   | Steve Werner, AG4W  |

## Other Tools Beneficial to DXers

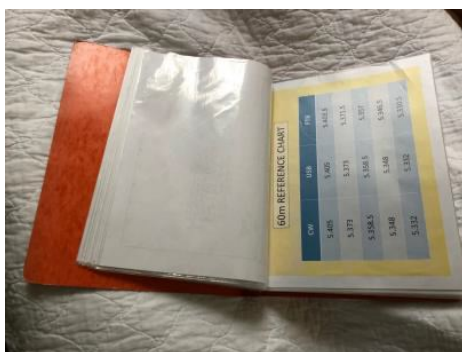
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are entered in my logging software correctly.

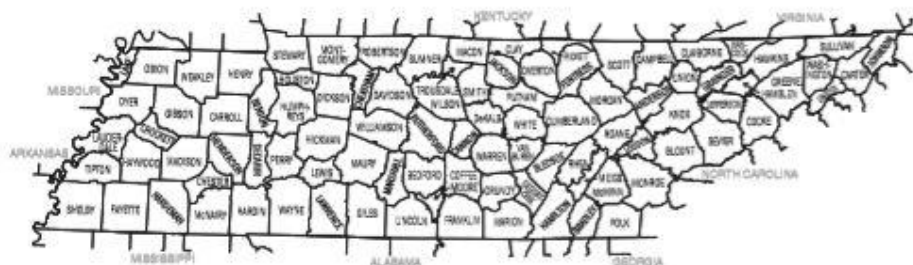
Other handy information that I use include a table of amplifier settings that I generated in Microsoft Excel based on tuning my amplifier on all of the HF bands. When a DXCC entity is spotted on the DXCluster, it is very helpful to already know where to set the amplifier "Tune" and "Load" knobs to make that quick contact and snag a new country.

Finally, (picture 8) I have taken all of this information and bound it in one handy package that I have by my side on my desk at all times, within arm's reach, because it is used very often throughout casual DX'ing and serious contesting. I have found myself many times searching for a beam heading or trying to tune an amplifier (not on the

DX) only to let a critical DXCC country slip by. Now I have devised a method to have pertinent information at my fingertips. Whether you compile the information discussed as I have or not, the information is still critical for serious DX'ers and contesters to have nearby and utilize. My "other tools" are indeed important to me and have allowed me to decrease that opportunity to let another one get away.



Picture 8: One handy package



Picture 6: Counties in Tennessee

### ALPHA 78 TUNE-UP CHART (3 x 8874 tubes)

| BAND | MODE | FREQ | Tune | Load | VSWR in | Output kW | Drive |
|------|------|------|------|------|---------|-----------|-------|
| 160m | CW   | 1.85 | 64   | 25   | 1.4     | 1512      | 73    |
| 80m  | CW   | 3.55 | 84   | 13   | 1.38    | 1555      | 76    |
| 75m  | SSB  | 3.75 | 73   | 23   | 1.35    | 1501      | 70    |
| 75m  | SSB  | 3.95 | 66   | 32   | 1.32    | 1518      | 71    |
| 40m  | CW   | 7.15 | 50   | 43   | 1.25    | 1530      | 96    |

Picture 7: Amplifier Quick-Tune Guide

## AC4G Shack Progress

By Bruce Smith, AC4G



Crop duster apparently inspecting AC4G's traps.



The new, improved AC4G shack

### The LongPath Staff

Publisher/Editor:

Tom Duncan, KG4CUI

Departments:

Chuck Lewis, N4NM, DX Contests

Chris Reed, AI4U, Minutes

Bob De Pierre, K8KI, From the President

Steve Molo, KI4KWR, VP Corner

Kevin Hibbs, KG4TEI, The Casual DXer



## Working the 13 Colonies

By M. D. Smith, WA4DXP

After being mostly off the air for two years, I decided to give the '13 Colonies Special Event' a try. From my DX chasing years from 2014-2018 and getting DXCC and another 53 countries, I relied heavily on my experience on bands and modes, using only a Carolina Windom 80-10 antenna in my backyard.

With the aid of DXSummit and other spotting sites, I quickly found the K2\* stations I was looking for. The 13 colonies are represented by stations in 13 states with special event call signs from K2A through K2M and two bonus stations, one in Philadelphia and the other in Great Britain. I heard GB13COL on FT-8, and though I could not work him, I did get SWL logging which partially counts for just him.



I used CW with the aid of my Flex-6300 and CW-Skimmer. Some of them were clipping along at 35-40 WPM and while I could always detect my call and the "TU" it was better to make sure he got my call correct and I could have done without Skimmer, but it helped. Knowing the exact frequency to tune the Flex from DX spotters is a big aid. Other contacts were on digital and SSB. My days of fighting the pileups on phone for rare DX-peditions came in handy, learning just when to call, and often using only, "Delta, Xray, Papa" to get a return from the event station. FT-8, you look for ones with a decent signal, find a clear spot on the 3k band, and start calling. Within 5 minutes, I worked most I tried to get. It's nice to see the red bar appear when you get an answer to your call.



One was working FT-4 mode, and I got him easily. He was +08. My first contact was Friday 18:20 (1:20pm) and last was that night (actually 7-4-20) at 01:09 (but 8:09pm the same day) and I had worked them all including bonus station.

It was a lot of fun and a feeling of accomplishment to work them ALL in a single day. Never done that before. Now the coming Route 66 event, is NOT easy since they're all out west. The 13 Original colonies from Georgia up the east coast was much easier.

73, M.D. WA4DXP

Original 13 Colonies Special Event - Certificate Request Log Sheet

|         | DATE       | UTC   | FREQ   | RS(T)   | MODE     |
|---------|------------|-------|--------|---------|----------|
| K2A-NY  | 7-3-20     | 18:20 | 14.074 | 59      | FT-8     |
| K2B-VA  | 7-3-20     | 16:59 | 7.220  | 59      | SSB      |
| K2C-RI  | 7-4-20     | 01:09 | 14.080 | +11/+09 | FT-4     |
| K2D-CT  | 7-3-20     | 18:47 | 14.045 | 599     | CW       |
| K2E-DE  | 7-3-20     | 21:40 | 7.028  | 599     | CW       |
| K2F-MD  | 7-3-20     | 16:29 | 14.326 | 59      | SSB      |
| K2G-GA  | 7-4-20     | 00:56 | 7.074  | -01/-15 | FT-8     |
| K2H-MA  | 7-3-20     | 19:28 | 14.040 | 599     | CW       |
| K2I-NJ  | 7-4-20     | 01:24 | 14.284 | 59      | SSB      |
| K2J-NC  | 7-3-20     | 18:17 | 14.074 | +07     | FT-8     |
| K2K-NH  | 7-3-20     | 18:35 | 14.280 | 59      | SSB      |
| K2L-SC  | 7-3-20     | 16:44 | 14.036 | 599     | CW       |
| K2M-PA  | 7-3-20     | 16:52 | 14.190 | 59      | SSB      |
| WM3PEN  | 7-3-20     | 21:58 | 7.035  | 599     | CW       |
| GB13COL | SWL 7-3-20 | 22:12 | 14.074 | -18 SWL | FT-8 SWL |

ENDORSEMENTS ☐ ALL QRP ☐ VET ☐ AMER. LEGION ☐ NRA ☐ VFW ☐ CW

WE REQUEST A DONATION OF \$5.00, CASH, CHECK, OR MONEY ORDER MADE PAYABLE TO:  
KEN VILLONE - KJ2US

PLEASE SEND YOUR REQUEST TO: KEN VILLONE - KJ2US PO BOX 185 CONESUS, NY 14435-0185

NAME M.D. Smith CALL SIGN WA4DXP

ADDRESS 2300 Woodchiff Rd SE CITY Huntsville

STATE / PROVINCE / COUNTRY AL ZIP/MAIL CODE 35801

WE HOPE YOU ENJOYED THE SPECIAL EVENT PLEASE HAVE A HAPPY INDEPENDENCE DAY!

## VP Corner

By Steve Molo, KI4KWR

Hope everyone is doing well with the current situation we are under. Nothing much on this end has changed except the amateur radio world and new hams which is always a plus keeping me and the Store busy. For those that are not aware, August 8<sup>th</sup> and 9<sup>th</sup> is the QSO Today Virtual Ham Expo (<https://www.qsotodayhamexpo.com/>) which is a online event with speakers and vendors present. Hoping for a great turnout for the event since the only shows

left for me to attend is W4DXCC and Chattanooga Hamfest for 2020.

Well other than the daily routine working on going to V26B Contest Site in Antigua in March 2021 for the CQ WPX Contest. Only stoppage is going to be the pandemic and restrictions they will have in place. Already began the process to get the proper license and starting the Hotel and airfare cost analysis.

Fall/Winter Contests....soon many of use will be checking our 160m antennas and receive arrays for the top band contests ahead. This year will be my first time doing 160m in Alabama but will be attending the W2GD/N2CW Contest Station for both the CQ 160 CW and SSB contest in 2021. Stay safe and get on the air!!

73, Steve, KI4KWR

## DX Contests for July

By Chuck Lewis, N4NM

### IARU HF World Championships (SSB/CW), 160 - 10M

July 11, 1200Z to July 12, 1200Z

Exchange: RS(T) plus ITU zone; IARU HQ stns send HQ abbrev.

See page 74, July QST and <http://www.arrl.org/iaru-hf-championship>

### Russian Radio Team Championship (SSB/CW), 40 - 10M

July 18, 0700Z to July 18, 1459Z

Exchange: RS(T) + ITUzone or 3-char. Code

See page 74, July QST and [www.srr.ru/chempionat-rossii-po-radiosvyazi-na-kv-rtc](http://www.srr.ru/chempionat-rossii-po-radiosvyazi-na-kv-rtc)

### RSGB IOTA Contest (CW/SSB), 80 - 10M

July 25, 1200Z, to July 26, 1200Z

Exchange: RS(T), S. N., & IOTA# if island

See page 74, July QST and [www.rsgbcc.org/hf](http://www.rsgbcc.org/hf)

### European HF Championship (CW/SSB), 160-10M

August 1, 1200Z to 2359Z

Exchange: RS(T) plus year first licensed

See: <http://lea.hamradio.si/~scc/euhf//euhfcrules.htm>

### WAE DX Contest, (CW), 80 - 10M

August 8 0000Z, to Aug. 9, 2359Z

Exchange: RS(T) plus Serial #

See: <http://www.darc.de/referate/dx/contest/waedc/en/rules/>



Dates & times often change or are misprinted in the journals. Beware.

Chuck, N4NM

## ARRL VHF Contest

Anita Vibbert, KD2KAG with Warren Alford, K4MMW & LongPath Staff

Concern over the freshly-licensed tech plus who buys an HT and is never heard on the air again weighed heavy on Warren Alford, K4MMW. "What can we do to pull these newbies into the ranks?" he mused one sleepless night. "How about offering them something fun to do—maybe even in the June ARRL VHF Contest?" Warren talked with Tim Wininger, AB4B, Chris Arthur NV4M, and Steve Werner AG4W about, in a way, informally "extending" the contest to pull in the newbie ham with nothing but an HT.

Taking a lack of "are you crazy" responses as "what a great idea", Warren pressed on. Chris, Warren, and Kim Hensley, WG8S presented programs at weekly HARC meetings to promote the scheme and prepare those who would participate. 200 QSOs with local hams we all know was dangled as a tangible goal for the VHF contest. HTs would be fine—just make sure the QSOs are simple.

With the help of Anita Vibbert, KD2KAG, other clubs and hams with no club affiliation in Decatur, Athens, and Huntsville were contacted, encouraging them to participate on June 13th in the VHF contest. The goal of bringing the "at risk of becoming inactive" ham into the fold via the fun was articulated.

Reasoning that this "no ham left behind" policy might benefit from a well-known meeting place where experiences could be shared during the contest, Warren convinced some more experienced hams both to participate in the contest and to meet on 2m simplex at the top of every hour. This provided a rallying point and a way to pass hints and experiences back and forth.

Since the goal of 200 QSOs implied — or at least hoped — these QSOs would be logged, an introduction to logging using N1MM Logger was provided by Mark Brown, N4BCD as a program. This couldn't have come at a

better time, with Field Day fast on the heels of the VHF contest.

Since grid squares are multipliers, mobile "rovers" are fun for the rovers themselves as well as being a great way to give out points. NV4B activated at least six grid squares, and Anita and other rovers were also heard. Mark Brown and others did report more 2M activity than in years past.

For those who were able to get on 6m, sporadic-E conditions during the contest were excellent, with impressive openings to the north and west.

Warren summed up the contest: "We had a lot of participation and FUN with new amateurs and hams getting back into VHF. I believe we've generated renewed interest in VHF during solar minimum and I foresee a lot more FUN in our contesting future!"



## Erecting an Amateur Radio Tower in Madison County

By Tim Large, KY4TT

I originally received my Novice Class license in the early 1970's in rural Kentucky where there were no limitations outside of the FCC rules to limit the erection of an amateur radio tower. After allowing my license to lapse I decided to get back into the hobby last year and passed all my exams and achieved my Extra Class license. Having always enjoyed the HF bands the first thing that came to mind was that I needed to erect a tower and put a yagi antenna in the air as high as practically possible. After performing a cursory scan of the internet and reading an article on Antenna Zoning for the Radio Amateur by Fred Hopengarten, K1VR (who suggested when in doubt consult local building inspection officials and obtain a building permit or at least a statement that no permit is required) I decided to contact the Madison County Building Inspection Department.

Having lived in this area since January 1984 and knowing the large number of amateur radio operators in the area, the wide support for civil defense and the advancement of electrical and electronics in general I believed obtaining a building permit or permission to erect a tower would only be a formality. As it turned out this was a huge miscalculation, I called the local Madison County Inspection Department in August (2019) to get approval/permission to erect an amateur radio tower on my property but the inspector I spoke with immediately wanted to treat my proposed amateur radio tower as a commercial tower application, similar to an ATT, Verizon, or other commercial broadcast tower, which triggered a huge number of highly specific and expensive requirements (e.g. professional engineer licensed in the state of Alabama had to review and approve the structural integrity of the tower, anyone working on the tower

had to be licensed in the state of Alabama, a soil analysis as well as a wind load analysis would have to be performed by a licensed professional engineer, etc.). I tried reasoning over the phone that the tower I wished to install (Rohn Tower) had been reviewed by a professional engineer and came with very detailed instructions/drawings for its proper installation plus the fact that literally tens of thousands of these towers are installed and in use throughout the world. Despite all my efforts he wouldn't budge.

The flat rejection of my proposed tower taught me a few things. First, I wasn't properly educated on the topic because I'd thought it wouldn't be an issue, second I would be delayed because I felt some amount of time was necessary to let the air clear so to speak plus I wasn't 100% sure of exactly what tower/antenna combination I wanted to install, next I needed to thoroughly research the law and understand how other local municipalities handled amateur radio towers and finally I'd need a face to face meeting with the inspection officials so there could be no misunderstanding of my application.

I researched the issue extensively and consulted with everyone I thought could provide any guidance to assist me in obtaining permission or a permit to erect a tower. The website hosted by Fred Hopengarten, K1VR, Telecommunications Lawyer, [https://www.antennazoning.com/main/page\\_home.html](https://www.antennazoning.com/main/page_home.html) [antennazoning.com], provided a wealth of background information on issues related to amateur radio tower installations, municipalities and local home owner associations. The one thing I gained from all this research is that erecting an amateur radio tower is not a trivial matter and can become very political and ex-

pensive. Although I was never able to locate any specific code governing amateur radio towers in the local Madison County Building Code or the Laws of the State of Alabama I was able to locate specific building codes regarding an amateur radio tower in both the City of Huntsville and the City of Madison building codes. Huntsville will allow by code a "personal use" tower up to 75 feet without permit and above 75 feet by permit, Madison City will allow an amateur radio tower "Accessory Electronic Communications Antenna Tower" up to 100 feet with permit and both specifically exempt an amateur radio tower from all commercial tower ordinances.

The big day came and I collected all my research, printed the pertinent portions of Huntsville and Madison City Ordinance Codes and copies of the FCC rules to cover every perceivable question I thought an inspector might ask and proceeded to the Madison County Building Inspection offices. As it turned out the guys there were very accommodating and the only piece of paper I needed was a copy of the Huntsville City Ordinance which calls for no permit below 75 feet and up to 100 feet with permit. He informed me that Madison County does not permit a tower application for amateur radio so I got the all clear to proceed. I'm not really sure if I was initially unclear on the phone regarding my proposed use of a tower, spoke with a different inspector, or if things had somehow changed between now and late last summer but regardless I'm now reading to begin the process of erecting a tower.

73, Tim

## 147.300 Repeater Notes

By Rob Conklin, N4WGY

*[The following is from Rob Conklin, President of NARA. On June 20, the 147.30 repeater, which is normally used to carry our DX spots, suddenly died. Resuscitation was not an option: it was dead. I wrote Rob and asked him to fix it, which he completed in three days. Rob is a kind and considerate ham, and does much of his work in a way that no one ever sees. But we certainly appreciate what he does. He needs a strong round of applause.—Bob, K8KI]*

It was my pleasure donating the equipment to replace the 147.300 hardware. It was not outrageously expensive and it was the only way I could pull back the NARA Yaesu DR1 repeater asset without taking 147.300 entirely off the air. The Yaesu DR1 was needed for deployment as a stopgap repeater for NARA's failed 40+ year old GE MASTR-II 146.94 machine. We're about two or three weeks away from completing refurb on a very nice Motorola MSF5000 repeater pictured below to be used as the "new-to-us" 146.94 repeater. Once that's deployed the Yaesu DR1 will be freed up as a standby emergency replacement machine for use if Murphy's Law hits us on any other repeater. The DR1



is particularly well suited and agile for this role because it is very easy to program, has an internal AC/DC power supply and is dual band 2m/70cm. Additionally it can operate FM or C4FM. If the hardware I've deployed as the "new-to-you" 147.300 fails in future and requires funds to repair, I'll ping NADXC leadership then for fiscal support. I sincerely hope it serves you all well for a long time before needing anything (knocking on wood)!

The current site of the 147.300 is geographically advantageous as it enjoys good site security and is plugged into a good antenna atop a 55 foot tower on a property within 50 feet of the mountain peak. After I got to know the property owner, and he got to know me, it is now clear there will be no problems if/when I need to pay a maintenance visit. He's really a heck of a nice fellow and was even gracious enough to allow wifi access to the controller so it can receive constant network time updates. No more annoying incorrect hourly time telemetry! I would have liked to ask for some firewall port forwarding to allow remote access to the controller but felt that was likely asking a bit much so did not ask.

Please pass to the NADXC membership that I seldom monitor the 147.300 so I will have to lean on NADXC users to let me know if there is a problem with it.

While writing this note I took a look at the NADXC membership roster and saw that my membership had lapsed, I promptly renewed and am hoping the pandemic protocols are gone next year. I've genuinely missed the annual tradition of HSV hamfest and DX club banquet this year.

73, Robert Conklin, N4WGY

## New Tower

By Mick Bell, N8AU

*[Mick Bell, N8AU, had long been stymied by antenna restrictions. Until now. He just got his first tower up. Nice one. DXCC isn't far off, Mick. Looks like he may need a little help. Bob, K8KI]*

Finally got her up. All seems to be working EXCEPT my rotor is not pointing in the right direction. No software fix so I'll need to find some way to lay the tower down and re-orient the rotor so it knows where north is. Mick, N8AU





## August Vote on Constitution Changes

(cont'd from p. 3)

The proposed constitutional changes, from the January LongPath, are:

**Article I, Membership, Section 1** will be amended to read:

"Membership shall be open to all persons meeting membership requirements detailed in the by-laws, in three classes: Regular, Emeritus, and Inactive."

**Article I, Membership, Section 3** will be amended to read:

"A Regular member may resign by verbal or written notice to the club Secretary/Treasurer at any time. A member who resigns will be removed from Inactive status as well."

**Article I, Membership, Section 5** will be amended to read:

"Membership for Regular members shall revert to Inactive Status in the event of non-payment of dues. Regular membership

privileges shall be reinstated immediately upon receipt of the current year's dues by the Secretary/Treasurer. Regular members who revert to Inactive Status can remain in that status indefinitely, and their DXCC totals will always remain."

**Article I, Membership, Section 6** will be amended to read:

"Members in any class may be removed for cause by a three-fourths (3/4) majority vote of Regular members in attendance at a regular meeting. Cause for removal shall first be presented to the Board of Directors in writing and, upon a majority finding of sufficient grounds by the Board, shall be presented to the membership for a vote."

**Article VI, Amendments, Section 1** will be amended to read:

"The Constitution may be amended by a three-fourths (3/4) majority vote of the Regular members in attendance at the amending meeting. Notice of the proposed

amendment shall be published in the Long Path at least thirty days prior to the amending meeting, and notification of the availability of the Long Path on the NADXC web site shall be sent by email to all Regular members at that time."

**Article VI, Amendments, Section 2** will be amended to read:

"Proposals to amend the By-laws must be presented in a regular meeting. A motion must be made at a regular meeting following announcement of proposed changes in the LongPath in order for the proposal to be called to a vote, when a three-fourths (3/4) majority vote of Regular members present is required for passage."

## Evelyn Watson, KC4RPD, SK

By Kelley Johns, W4VPZ

Evelyn Watson KC4RPD, wife of Al Watson W4ABW, passed away unexpectedly on Tuesday, June 30, 2020. Evelyn had been driving Al to Club meetings in the past few years, so many of you have met her.

I helped Dan Street K1TO assemble and install Al's newest beam antenna, and Evelyn always offered us cold drinks and home-baked snacks. Assembling the beam wasn't so difficult, as long as all the nuts and bolts were kept in identifiable piles. Raising the beam, though, was a magnificent piece of art. Chris AI4U helped on the day we raised it, monitoring the lifting rope and giving me the stop/go commands. I pulled the lifting rope with my truck, and Dan, on the tower, rotated the tilted beam through the guys on the slow rise. I know Dan drove away to his next job with a front seat loaded with bana-

na bread and other delicious gifts from Evelyn's kitchen.

HAYLARC also enjoyed Evelyn's membership, but she was rarely available to attend our lunch meetings, as she and Al often kept their great-granddaughter Shelby during the day.

Bob K8KI recently wrote: "Al is now in first place on the DXCC Honor Roll for NADXC, with 370 countries. No one, living or gone, is ahead of him. While I was visiting last October I asked him to tell me the story of how he achieved it. He said "Bob, I have a confession to make. I never learned CW. I just learned my call sign." I found that staggering, but quite true. I'll never forget it. I try to tell other hams, stuck at 10WPM and attending CW University, about what Al told me."

Visitation will be Thursday 7/2/2020 at Berryhill Funeral Home 11:00-12:30, with graveside to follow at Maple Hill at 1:00 p.m.

We send our deepest condolences to Al and his family.

73,  
Kelley W4VPZ

## June Meeting Minutes and Treasurer's Report

By Chris Reed, AI4U, NADXC Secretary/Treasurer

Bob K8KI called the virtual meeting of the North Alabama DX Club to order on the 147.300 repeater on Tuesday June 9, 2020 at 7pm. A few brief announcements were made and the meeting was adjourned. Bob, K8KI presented the program "Extending the range of your 80m antenna". The next scheduled virtual meeting is scheduled for 7 p.m. Tuesday, July 14th on the 147.300 repeater and Zoom. Information will be sent prior to the meeting.

### Treasurer's Report

No change in the bank account for the month of June.

Balance \$8,989.68

Paypal account had a few transactions. We had a couple of members pay dues. Ticket money was refunded to those that had purchased tickets for the Hamfest banquet.

Balance \$101.38

Chris, AI4U

## July Meeting Invitation

By Bob DePierre, K8KI, NADXC President

We will hold our fourth consecutive virtual meeting next Tuesday. We have a new 147.300 repeater this month and I'd like to give it a try. We have had only a single check-in on 2m for the past two months. Most of us check in on Zoom, which has become increasingly popular. Our presentation will be on Zoom.

Robert DePierre, k8ki, is inviting you to a scheduled Zoom meeting. You can

check in easily by clicking on the link below:

Topic: NADXC July Virtual Meeting  
Time: Jul 14, 2020 07:00 PM Central Time (US and Canada). I will have Zoom up and running at 6:30 so you are welcome to check-in at that time.

Join Zoom Meeting. You do not need to have a Zoom account to check-in via the link below. This is easiest:

<https://us02web.zoom.us/j/3267408104?pwd=MzV3Uit1bldZeTVhV3o3WINZZmZGdz09>

Meeting ID: 326 740 8104

Password: 79797

## From the President

(cont'd from p. 1)

virtual meetings. So I've asked Tom, KG4CUY, to continue the subject on Tuesday night. We should then expect a final vote in August.

When I opened the July QST I turned to the Member Spotlight page about Alan Wolke, W2AEW, who has produced some 300 YouTube videos on our favorite hobby. Alan can make the most difficult electronic concepts appear easy and exciting, yet technically accurate. If you haven't seen one of Alan's videos, you should. They're great.

I have recently offered Elmer help to several members who haven't learned to work CW contests, but haven't had anyone accept yet. I keep thinking of Al Watson's words to me last year, "Bob, I have a confession to make. I never learned CW. I just learned my call sign." Al has 370 countries. He's worth listening to. I can hardly run in a CW contest, but I know how to score, and I think I could teach anyone who could recognize their call sign how to get on the road to DXCC. How about you?

Our presentation this month is from Chuck, N4NM, on The Rarest QSL Ever. Chuck was a young engineer at NASA working on the SkyLab project when the launch vehicle had a problem- on its way to orbit, and he was in the middle of it. Chuck was young and scared, but rose to the occasion. Listen to him tell his story. Meeting at 7pm on Tuesday, July 14. I will augment the Zoom meeting via our new 147.300 repeater.

73 de Bob, K8KI